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Sent: Thur 9/27/2012 2:36:29 PM
Subject: EPA, driller differ on new Pavillion water test results

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HYDRAULIC FRACTURING:

EPA, driller differ on new Pavillion water test results
 Mike Soraghan, E&E reporter
 Published: Thursday, September 27, 2012
 U.S. EPA says a second round of test results released yesterday by the U.S. Geological Survey supports

its preliminary finding that hydraulic fracturing contaminated groundwater in Pavillion, Wyo.

But the major driller in the Pavillion area says USGS's decision to sample only one of the two wells upon which EPA based its conclusions shows serious flaws in EPA's handling of the case.

Encana Corp.'s Doug Hock leapt on the inconsistency, saying it validates the company's concern that EPA's monitoring wells were improperly constructed.

"The report seems to indicate that USGS declined to sample MW02 because the well could not provide a sample that was representative of actual water quality conditions," Hock said in a statement.

Organic compounds detected in deep monitoring wells MW01 and MW02 during Phase III and IV sampling events. Horizontal bars show method reporting limits for the individual analytes. Chart courtesy of U.S. EPA.

USGS offered no analysis to resolve the different accounts. In releasing two reports yesterday, the agency pointedly stayed out of the bitter battle of words and science taking place in the small community of Pavillion. The agency said its agreement with the state of Wyoming called for it to release the data without analysis.

"While USGS did not interpret the data as part of this sampling effort, the raw data results are adding to the body of knowledge to support informed decisions," said David Mott, director of the USGS Wyoming Water Science Center.

USGS said the data will also be made available to a peer-review panel tasked with looking at the broader EPA study.

USGS released two reports from the new round of testing. One document detailed its study plan. The other document gave the results of an extra round of testing.

At stake is the reputation of gas drilling and hydraulic fracturing, or "fracking."

Some Pavillion-area residents say they began to suspect water contamination in 2005, around the time that hydraulic fracturing and other activity picked up in the area, where drilling has taken place for decades. But they said state officials ignored their concerns. EPA, though, began an investigation under its Superfund authority.

When EPA announced last year it had found frack fluid in groundwater in the Pavillion area, it punctured the industry talking point that there has never been a documented case of groundwater contamination from fracking. Still, the agency did not find fracking chemicals in the groundwater that area residents use for drinking.

Nevertheless, EPA's finding on frack fluids came under furious assault from Wyoming officials, congressional Republicans and the oil and gas industry. One Wyoming oil and gas official said earlier this year that the residents who have complained about their water are motivated by "greed." Within weeks, he was forced to resign by Gov. Matt Mead (R) (EnergyWire, June 15).

Amid the barrage of criticism, EPA agreed to the further testing. USGS said the results released yesterday were from testing requested by state officials.

EPA's finding regarding fracking chemicals relied on results from just two monitoring wells that it paid to have drilled in the area.

EPA officials said they did not have enough money to drill more. In the December report, they are referred to as MW01 and MW02. The deeper of the two wells was MW02, and it showed more signs of contamination.

It was MW02 where concentrations of benzene were 49 times EPA's maximum contaminant level.

But USGS said it found problems with MW02 that caused it not to have confidence in the findings. Water entered the well, USGS reported, at an "exceedingly low" flow rate. USGS said it tried procedures that would account for that, but in the end it could not get data from the well that would meet its standards.

"The initial intention of the USGS to sample well MW02 using purge procedures that would be as consistent as possible with the standard USGS approaches implemented at well MW01 could not be carried out," the report states.

More federal criticism

The drilling of the well has also been criticized by another federal agency, the Bureau of Land Management. In a newly surfaced document, BLM State Director Don Simpson criticized EPA's testing procedures in Pavillion as insufficient and called its findings "premature."

"The suggestion that hydraulic fracturing is the explanation for the presence of certain analytes detected in groundwater samples is premature," Simpson said. "We recommend a larger and much more robust study effort and investment prior to drawing any conclusions, particularly in the case about the role of hydraulic fracturing use in development of the oil and gas resource."

The letter, submitted as part of EPA's formal comment period, is dated March 1, but it was not formally posted to the record until July. It was not widely noted until it was highlighted by industry sources yesterday.

The EPA report cited a host of other drilling problems in the area, such as unlined pits that leaked benzene into shallow groundwater and numerous wells that drillers failed to seal off from drinking water by encasing them in concrete.

But attention focused on whether the Pavillion case debunked the oil and gas industry's claim that there had never been a documented case of groundwater contamination from the specific process of hydraulic fracturing.

Despite the problems USGS encountered, EPA officials said the results are "generally consistent" with the preliminary study it released in December.

"Data released by the United States Geological Survey (USGS) is generally consistent with ground water monitoring data previously released by the Environmental Protection Agency (EPA) for the Pavillion, Wyo. area," EPA said in a statement released

after the USGS announcement."That data was released for public comment and review, and the important feedback received from these steps will help inform the final analysis. Once finalized, the latest EPA data, along with the USGS data, will be submitted to an independent, expert peer review as part of the ongoing scientific process later this year."

[Click here to read the USGS study plan.](#)

[Click here to read the USGS results.](#)

[Click here to read EPA's December report.](#)